



# Commercial Vehicle Safety Alliance

 DEPT. OF TRANSPORTATION  
DOCKETS

October 15, 2008

OCT 17 2008

David Kelly  
Acting Administrator  
U.S. DOT / NHTSA  
1200 New Jersey Avenue SE  
Washington, DC 20590

Dear Mr. Kelly:

Pursuant to 49 Code of Federal Regulations (CFR) §552.3, the Commercial Vehicle Safety Alliance (CVSA) is petitioning the National Highway Traffic Safety Administration (NHTSA) to amend §571.121 Standard No. 121; Air brake systems.

The petitioner requests to amend S5.2.3.3 Antilock malfunction indicator, by requesting a 'stay' to the manufacturing sunset date of "...and before March 1, 2009,..." regarding the external antilock malfunction indicator lamp. The reason for not having a "gap" in the requirements is that the current phased-in requirements have already complicated the inspection process. We have enclosed a copy of *Inspection Bulletin - 2007-02 Antilock Brake System (ABS) Inspections*, to illustrate how confusing the current inspection procedure is for inspectors, drivers, and mechanics.

Section 5.2.3.3 (a) of Title 49 CFR Part 571.121 requires an external antilock malfunction indicator on each trailer and dolly manufactured prior to March 1, 2009. On this date the external indicator requirement expires. CVSA is concerned about the safety implications of the expiration of this requirement and is petitioning NHTSA to extend the requirement for external antilock malfunction indicators on trailers and dollies indefinitely.

We believe that without a requirement for the external antilock malfunction indicators, many manufacturers of trailers and dollies will no longer install them. While section 5.1.6.2 (b) requires a separate antilock malfunction indicator for trailers and dollies in the cab of all towing vehicles produced after March 1, 2001 and this requirement continues indefinitely, we do not believe that is equivalent for the following reasons:

1. There are still many towing vehicles on the road that were produced prior to March 1, 2001. If a trailer and/or dolly without an external antilock malfunction indicator is coupled to one of these power units, the operational status of the trailer or dolly ABS cannot be determined without the use of special diagnostic equipment. It will be virtually impossible for drivers and roadside inspectors to determine the operational status of the trailer or dolly ABS in this case.

2. While all post-March 1, 2001 towing vehicles will have in-cab warning of a trailer or dolly ABS malfunction, it will not be possible to easily determine which of the units in a double or triple trailer combination has an ABS defect unless the trailers and dollies each have external malfunction indicators as well. Roadside inspectors will not be able to cite a problem on a specific trailing unit in such a situation.
3. Many trailer repair shops rely on the external malfunction indicator to quickly determine ABS operational status without having to couple a post-March 1, 2001 tractor to the trailer or dolly. With the external malfunction indicator, any age of tractor can be utilized or a standard battery powered device used to check trailer lighting can perform the test without even using a tractor.
4. With a post-2001 towing vehicle, the failure of the in-cab indicator to light during the bulb check produces a confusing message to the driver or vehicle inspector if there is no external antilock malfunction indicator on the trailer or dolly to provide additional information: a) the bulb may be burned out (a towing vehicle defect), b) the trailer may not have ABS (pre-March 1, 1998 - no defect), or c) the trailer may have ABS but be unable to communicate with the tractor (a trailer defect). The driver or inspector would know which of these is true if the trailer also had an external malfunction indicator light.

While item one becomes less of a problem as time passes (more and more towing vehicles will have the in-cab indicator), the remaining items will not change with time. Because of this, CVSA is not suggesting an extension of the date on which the requirement for an external indicator expires but is recommending that the requirement for the indicator not have an expiration date.

If you have further questions or comments, please do not hesitate to contact me by phone at 202-775-1623, ext. 109 or by e-mail at [stephenc@cvsa.org](mailto:stephenc@cvsa.org).

Sincerely,

  
Stephen F. Campbell  
Executive Director

Cc: John H. Hill, Administrator, U.S. DOT / FMCSA  
Darren E. Christle, President, CVSA  
Kerri Wirachowsky, Vehicle Committee Chair, CVSA

Enclosure



# Commercial Vehicle Safety Alliance



North American Standard Inspection Program

## I N S P E C T I O N     B U L L E T I N

2007-02

Revised September 15, 2008

### Antilock Brake System (ABS) Inspections

#### Summary

This *Inspection Bulletin* provides guidance for inspecting the antilock brake system (ABS) on a bus, truck, tractor or trailer during a roadside inspection, and for identifying when a vehicle is in violation.

#### Background

Antilock brakes are installed on vehicles to eliminate wheel lockup and prevent skidding, which helps drivers maintain control during stops on low traction surfaces and in emergency stopping situations. In addition to the direct benefit of greater directional control, the improved vehicle control offered by ABS reduces the potential for trailer swing-out and jack-knifing of combination vehicles, and reduces the potential for spin-out of single-unit vehicles.

ABS operates only in specific operating conditions and it is difficult for a driver to confirm ABS is working correctly. For this reason ABS includes an on-board fault detection system, which activates an indicator lamp to notify the driver of any ABS malfunction. ABS malfunction lamps are amber-colored and located on the instrument panel of trucks, buses and truck tractors (dash-mounted), and located on the exterior of trailers near the red rear side marker lamp on the left side (trailer-mounted). Converter dollies must have the lamp located on their left side. ABS malfunction lamps must be clearly identified with the letters "ABS".

A recent report entitled "*Warning Assessment of Antilock Brake System (ABS) Malfunction Indicator Lamp Status – A Snapshot of In-Service Vehicles*", DOT-FMCSA-MCP\_PSV-05-003-ABS provides the results of inspections of ABS malfunction indicator lamps of approximately 1000 vehicles. Despite obvious safety benefits, this study found that approximately one in six power units manufactured on or after March 1, 1997, and one in three trailers manufactured on or after March 1, 1998 was operating with a malfunction of the ABS. These results point out the need for more intensive inspection of vehicle ABS.

#### Guidance

The functional status of a commercial vehicle required to be equipped with ABS, is indicated by the ABS malfunction lamp. When power is initially provided to the ABS system, either when the vehicle's ignition switch is turned on, or when power is supplied to the brake lamp circuit on a trailer, the lamp momentarily turns on to confirm it is working and during this time a self-test of the ABS is automatically conducted. When any fault is detected during the system test, the lamp stays on, otherwise the lamp turns off. A vehicle malfunction and possible violation is present when the ABS malfunction lamp fails to turn on at all or when the lamp turns on and stays on.

#### Applicability

The effective dates for ABS requirements in the U.S. and Canada vary depending on the vehicle's date of manufacture, the type of brakes and on the vehicle type. Truck tractors having air brakes manufactured on or after March 1, 1997, and operating in the U.S. must have ABS. Trucks and buses having hydraulic brakes

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manufactured on or after March 1, 1999, and operating in the U.S. must have ABS. Trailers and single unit vehicles manufactured on or after March 1, 1998, and operating in the U.S. must have ABS. Truck tractors, single unit vehicles and trailers manufactured on or after April 1, 2000, having air or hydraulic brakes and operating in Canada must have ABS. Towing vehicles and trailers having air brakes manufactured on or after March 1, 2001, operating in Canada or the U.S. must be capable of communicating with one another so that a trailer ABS malfunction is indicated on a separate warning lamp on the instrument panel of the towing vehicle.

Older truck tractors, buses, trucks and trailers were not required to be equipped with ABS and malfunction lamps operate in a variety of ways depending on the vehicle manufacturer. In some cases the vehicle must travel up to 5 mph (7 km/h) in order to turn out the ABS malfunction lamp. Since this was not a regulated requirement at the time of manufacture, these vehicles are not subject to inspection for ABS system violations.

**Post-Crash Inspection of ABS**

The proper functionality of a vehicle's ABS can be an important factor in many crash incidents. Persons conducting a vehicle inspection in such cases are advised to confirm the status of the ABS using the procedures outlined in this bulletin and further advised to fully identify the nature of any malfunction that may be present.

**ABS Malfunction Lamp Location and Identification**

There is considerable variation in the location and style of dash-mounted ABS malfunction lamps between manufacturers, and even among vehicles produced by any given manufacturer. It is not uncommon for the parking brake lamp, ABS malfunction lamps, and automatic traction control (ATC) lamp to be located near each other on the dashboard and often they are the same color. The symbol or characters in the middle of the circle may be the only difference, so it can be hard to distinguish between them. Due to the lack of uniformity of the location and style of these types of lamps, identifying the proper lamp can be challenging, particularly when the lamp is inoperative. In some cases, the lamp may turn on and off very quickly and may require several cycles to correctly identify the ABS malfunction lamp. If both the towing vehicle and trailer were manufactured after March 1, 2001, failure of the dash-mounted trailer ABS malfunction lamp to illuminate could be due to an ABS malfunction in the towing vehicle, the trailer or both units.

**Special Case - Combination Vehicles with Full-Time Electrical Power on Trailers**

A very limited number of combination vehicles, particularly fuel tankers, provide full-time electrical power to the trailer in order to maintain safety-related equipment on the trailer in an operational status, even when the towing vehicle's engine is shut down and the ignition switch is off. Cycling the ignition switch on these vehicles will check the towing vehicle ABS malfunction light just as is done normally, however, it will not cycle the trailer ABS malfunction lamps mounted on either the towing vehicle dash or the trailer. (Such an arrangement is permitted under FMVSS/CMVSS No. 121). In this special case, it will be necessary to ask the driver to first disconnect and then reconnect the electrical cable between the towing vehicle and trailer while observing the operation of the trailer ABS malfunction lamps mounted on the towing vehicle dash (all towing vehicles manufactured after March 1, 2001) and on the trailer.

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## Antilock Brake System (ABS) Inspections

CVSA Standard ABS Inspection Procedures for U.S. Operations

Determine each vehicle's manufacture date and then select the correct procedure in the chart below:

**Manufacture Date****Truck or Bus with Hydraulic Brakes**

Before March 1, 1999    ABS is not required.

On or after  
March 1, 1999

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**Truck or Bus with Air Brakes**

Before March 1, 1998    ABS is not required.

On or after  
March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**Truck or Bus with Air Brakes Equipped to Tow Another Vehicle with Air Brakes**

Before March 1, 1998    ABS is not required.

On or after  
March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

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## Antilock Brake System (ABS) Inspections

## Manufacture Date

## Truck Tractor with Air Brakes

Before March 1, 1997

ABS is not required.

On or after  
March 1, 1997

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

## Trailer with Air Brakes (Including a Trailer Converter Dolly)

Before March 1, 1998

ABS is not required.

On or after  
March 1, 1998

Towed by a truck or truck tractor manufactured before March 1, 1997.

Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.

Towed by a truck or truck tractor manufactured on or after March 1, 1997.\*\*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

Towed by a truck or truck tractor manufactured before March 1, 2001.

Test in the same manner as trailers manufactured on or after March 1, 1998.

On or after  
March 1, 2001

Towed by a truck or truck tractor manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\*\* Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Power to the trailer's ABS circuit is delivered by a dedicated circuit from the truck tractor.

\*\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2009.

# INSPECTION BULLETIN

2007-02

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## Antilock Brake System (ABS) Inspections



In the U.S. the following vehicles are exempt from the requirements to have ABS:

- Any trailer that has a width of more than 102.36 inches with extendable equipment in the fully retracted position and is equipped with two short track axles in a line across the width of the trailer
- Any vehicle equipped with an axle that has a gross axle weight rating (GAWR) of 29,000 pounds or more
- Any truck or bus that has a speed attainable in 2 miles of not more than 33 mph
- Any truck that has a speed attainable in 2 miles of not more than 45 mph, an unloaded vehicle weight that is not less than 95 percent of its gross vehicle weight rating (GVWR), and no capacity to carry occupants other than the driver and operating crew
- Any trailer that has a GVWR of more than 120,000 pounds and whose body conforms to that described in the definition of heavy hauler trailer set forth in S4; *Heavy hauler trailer* means a trailer which has one or more of the following characteristics, but which is not a container chassis trailer
  - Its brake lines are designed to adapt to separation or extension of the vehicle frame, or
  - Its body consists only of a platform whose primary cargo-carrying surface is not more than 40 inches above the ground in an unloaded condition, except that it may include sides that are designed to be easily removable and a permanent "front end structure" as that term is used in §393.106 of this title
- Any trailer that has an unloaded vehicle weight which is not less than 95 percent of its GVWR
- Any load divider dolly

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## Antilock Brake System (ABS) Inspections

CVSA Standard ABS Inspection Procedures for Canadian Operations

Determine each vehicle's manufacture date and then select the correct procedure in the chart below:

**Manufacture Date****Truck or Bus with Hydraulic Brakes**

Before April 1, 2000      ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**Truck or Bus with Air Brakes**

Before April 1, 2000      ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**Truck or Bus with Air Brakes Equipped to Tow Another Vehicle with Air Brakes**

Before April 1, 2000      ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.



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## Antilock Brake System (ABS) Inspections

## Manufacture Date

## Truck Tractor with Air Brakes

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

## Trailer with Air Brakes (Including a Trailer Converter Dolly)

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000Connected to a truck or truck tractor manufactured before April 1, 2000.

Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.

Connected to a truck or truck tractor manufactured on or after April 1, 2000.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001Connected to a truck or truck tractor manufactured before March 1, 2001.Test in the same manner as trailers manufactured on or after April 1, 2000.Connected to a truck or truck tractor manufactured on or after March 1, 2001.Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\* Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2010.

## COMMERCIAL VEHICLE SAFETY ALLIANCE

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# INSPECTION BULLETIN

2007-02

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## Antilock Brake System (ABS) Inspections



In Canada the following vehicles are exempt from the requirements to have ABS:

- Any trailer that has a width of more than 2.6 m (102.36 in.) with extendable equipment in the fully retracted position and is equipped with two short track axles in a line across the width of the trailer
- Any vehicle equipped with an axle that has a gross axle weight rating (GAWR) of 13,154 kg (29,000 lb.) or more
- Any truck or bus that has a speed attainable in 3.2 km (2 mi.) of not more than 53.1 km/h (33 mph)
- Any truck that has a speed attainable in 3.2 km (2 mi.) of not more than 72.3 km/h (45 mph), an unloaded vehicle weight that is not less than 95 percent of its gross vehicle weight rating (GVWR), and no capacity to carry occupants other than the driver and operating crew
- Any trailer that has a GVWR of more than 54 432 kg (120,000 lb.) and has
  - brake lines designed to adapt to separation or extension of the vehicle frame, or
  - a body that consists of only a platform the primary cargo-carrying surface of which is not more than 101.6 cm (40 inches) above the ground in an unloaded condition, but may include sides that are designed for easy removal and a permanent front end structure
- Any trailer that has an unloaded vehicle weight which is not less than 95 percent of its GVWR
- Any load divider dolly

# ABS Inspection Procedure U.S. Field Reference Version



## Manufacture Date

## Truck or Bus with Hydraulic Brakes

Before March 1, 1999

ABS is not required.

On or after  
March 1, 1999

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

## Truck or Bus with Air Brakes

Before March 1, 1998

ABS is not required.

On or after  
March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

## Truck or Bus with Air Brakes Equipped to Tow Another Vehicle with Air Brakes

Before March 1, 1998

ABS is not required.

On or after  
March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

## Truck Tractor with Air Brakes

Before March 1, 1997

ABS is not required.

On or after  
March 1, 1997

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

## Trailer with Air Brakes (Including a Trailer Converter Dolly)

Before March 1, 1998

ABS is not required.

On or after  
March 1, 1998

Connected to a truck or truck tractor manufactured before March 1, 1997.

Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.

Connected to a truck or truck tractor manufactured on or after March 1, 1997.\*\*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Connected to a truck or truck tractor manufactured before March 1, 2001.

Test in the same manner as trailers manufactured on or after March 1, 1998.

Connected to a truck or truck tractor manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\*\* Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Power to the trailer's ABS circuit is delivered by a dedicated circuit from the truck tractor.

\*\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2009.



## ABS Inspection Procedure Canadian Field Reference Version

### Manufacture Date

### Truck or Bus with Air or Hydraulic Brakes

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

### Truck or Bus with Air Brakes Equipped to Tow Another Vehicle with Air Brakes

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

### Truck Tractor with Air Brakes

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

Connected to a trailer manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

### Trailer with Air Brakes (Including a Trailer Converter Dolly)

Before April 1, 2000

ABS is not required.

On or after  
April 1, 2000

Connected to a truck or truck tractor manufactured before April 1, 2000.

Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.

Connected to a truck or truck tractor manufactured on or after April 1, 2000.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

On or after  
March 1, 2001

Connected to a truck or truck tractor manufactured before April 1, 2001.

Test in the same manner as trailers manufactured on or after April 1, 2000.

Connected to a truck or truck tractor manufactured on or after March 1, 2001.

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\* Any other response indicates a malfunction of the ABS.

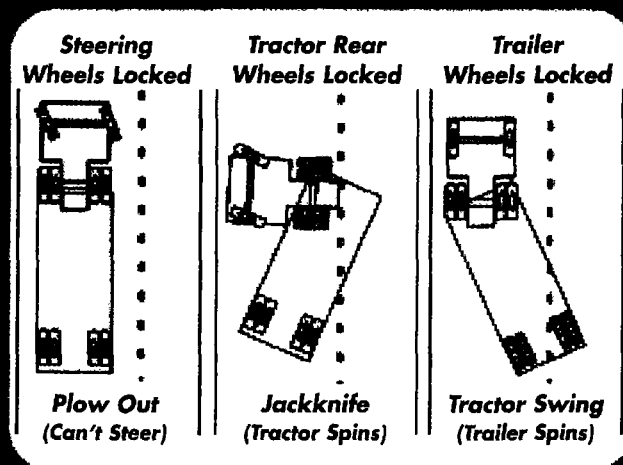
\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2010.

## UNDERSTANDING YOUR VEHICLE'S ANTILOCK BRAKING SYSTEM (ABS)

Every day, you are faced with situations where you need to make quick, decisive decisions. Knowing in advance if your vehicle has ABS and/or determining if the ABS is working properly is critical.

A vehicle equipped with ABS helps you maintain steering control and avoid skidding, jackknifing and trailer swing-out during an emergency braking situation. When you apply the brakes the ABS senses when a wheel is about to lock and then releases just enough brake force to get the wheel rolling again while still maintaining as much braking force on the wheel as possible. It may repeat this sequence several times a second and it may control each wheel differently.



ABS lamps are yellow-colored and marked with the letters "ABS." They can tell you if the ABS is working properly. The lamps are located on the instrument panel of trucks, buses and truck tractors ('dash-mounted'), and located on the exterior of trailers, near the red side marker lamp on the left rear side ('trailer-mounted'). Converter dollies also have the lamp located on their left side. If the vehicle you drive was built after March 1, 2001 and it is equipped to tow a trailer, it will actually have two ABS lamps on the dash - one for the tractor (or truck) and one for the vehicles being towed.

First, know where the ABS lamp is on every vehicle you operate and how to check that it's working properly. When the vehicle's ignition switch is turned on, or when power is supplied to the brake lamp circuit on a trailer power, the ABS lamp momentarily turns on to confirm it is working. During this time a self-test of the ABS is automatically conducted. When an ABS malfunction is detected during this test, the lamp stays on, otherwise the lamp turns off after a few seconds. If the lamp does not come on during the self-test, there could be a problem with the lamp bulb, the wiring or the ABS controller.

If the light stays on during the self-test or comes on when you are driving, there is an ABS malfunction present. Make sure you have any problems you find fixed as quickly as possible. Remember, if the lamp does not work you will never know if the ABS stops working. Always confirm that your ABS lamps are working during your pre-trip inspection.

Determine your vehicle's manufacture date and then select the correct procedure in the chart on the back of this page. The chart may seem complicated but the actual check is quite simple, and once you do it a few times on your vehicle it will become second nature and will take very little extra time during your pre-trip inspection.

# LOOK BEFORE THEY LOCK



## Manufacture Date

**Before** March 1, 1999

### TRUCK OR BUS WITH HYDRAULIC BRAKES

ABS is not required.

## **On or after**

March 1, 1999

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a defective ABS.

**Before** March 1, 1998

### TRUCK OR BUS WITH AIR BRAKES

ABS is not required.

## **On or after**

March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**Before** March 1, 1998

### TRUCK OR BUS WITH AIR BRAKES EQUIPPED TO TOW ANOTHER VEHICLE WITH AIR BRAKES

ABS is not required.

## **On or after**

March 1, 1998

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

## **On or after**

March 1, 2001

*Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

*Connected to a trailer manufactured on or after March 1, 2001.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

**Before** March 1, 1997

### TRUCK TRACTOR WITH AIR BRAKES

ABS is not required.

## **On or after**

March 1, 1997

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

## **On or after**

March 1, 2001

*Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a defective ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*

*Connected to a trailer manufactured on or after March 1, 2001.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

**Before** March 1, 1998

### TRAILER WITH AIR BRAKES (INCLUDING A TRAILER CONVERTER DOLLY)

ABS is not required.

## **On or after**

March 1, 1998

*Connected to a truck or truck tractor manufactured before March 1, 1997.*

Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.

*Connected to a truck or truck tractor manufactured on or after March 1, 1997\*\*.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

## **On or after**

March 1, 2001

*Connected to a truck or truck tractor manufactured before March 1, 2001.*

Test in the same manner as trailers manufactured on or after March 1, 1998.

*Connected to a truck or truck tractor manufactured on or after March 1, 2001.*

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\*\* Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Power to the trailer's ABS circuit is delivered by a dedicated circuit from the truck tractor.

\*\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2009.



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# LOOK BEFORE THEY LOCK



## Manufacture Date

### TRUCK OR BUS WITH AIR OR HYDRAULIC BRAKES

**Before** April 1, 2000

ABS is not required.

**On or after**  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

### TRUCK OR BUS WITH AIR BRAKES EQUIPPED TO TOW ANOTHER VEHICLE WITH AIR BRAKES

**Before** April 1, 2000

ABS is not required.

**On or after**  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**On or after**  
March 1, 2001

*Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the truck or bus ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*  
*Connected to a trailer manufactured on or after March 1, 2001.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the truck or bus, and trailer ABS dash lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

### TRUCK TRACTOR WITH AIR BRAKES

**Before** April 1, 2000

ABS is not required.

**On or after**  
April 1, 2000

Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**On or after**  
March 1, 2001

*Not connected to any trailer or connected to a trailer manufactured before March 1, 2001.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the tractor ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS. The trailer ABS malfunction lamp will not illuminate in this case.\*  
*Connected to a trailer manufactured on or after March 1, 2001.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both tractor and trailer dash-mounted ABS malfunction lamps turn on and after a few seconds the lamps go out. Any other response indicates a malfunction of the ABS.

### TRAILER WITH AIR BRAKES (INCLUDING A TRAILER CONVERTER DOLLY)

**Before** April 1, 2000

ABS is not required.

**On or after**  
April 1, 2000

*Connected to a truck or truck tractor manufactured before April 1, 2000.*  
Apply the brake pedal and confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds goes out before the brake is released. Any other response indicates a malfunction of the ABS.  
*Connected to a truck or truck tractor manufactured on or after April 1, 2000.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that the trailer-mounted ABS malfunction lamp turns on and after a few seconds the lamp goes out. Any other response indicates a malfunction of the ABS.

**On or after**  
March 1, 2001

*Connected to a truck or truck tractor manufactured before April 1, 2001.*  
Test in the same manner as trailers manufactured on or after April 1, 2000.  
*Connected to a truck or truck tractor manufactured on or after March 1, 2001.*  
Begin with the ignition key in the "off" position. Turn the ignition key "on". Confirm that both the trailer dash-mounted ABS malfunction lamp and the trailer-mounted ABS malfunction lamp turn on and after a few seconds the lamps go out.\*\* Any other response indicates a malfunction of the ABS.

\* The trailer ABS lamp in the dash only operates when the tractor is connected to a trailer manufactured after March 1, 2001.

\*\* Externally mounted ABS lamp is no longer required on trailers manufactured after March 1, 2010.



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